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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,952	04/15/2004	Brett Masters	2003-IP-009957 U1 USA	2280
20558	7590	08/28/2006	EXAMINER	
SMITH IP SERVICES, P.C. 660 NORTH CENTRAL EXPRESSWAY SUITE 230 PLANO, TX 75074			WAKS, JOSEPH	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,952	<b>Applicant(s)</b> MASTERS ET AL.	
	<b>Examiner</b> Joseph Waks	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 12-14, 34-36, 51-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Allen (US 20060064972).

Allen et al. disclose invention as claimed: an electrical power generating system, including a vibrating assembly including a vortex shedding device 10 which sheds vortices in response to fluid flow across the vibrating assembly; and a generator 16 which generates electrical power in response to vibration the vibrating assembly, wherein the vortex shedding device sheds the vortices at a frequency which is substantially equal to a resonant frequency of the vibrating assembly, an elastic support 12, arm 40 being more rigid than the support 42.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 4-6, 8, 10, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolm et al. (US 4,387,318) in view of Allen (US 20060064972).

Kolm et al. disclose a vibrating assembly 10 including a vortex shedding device 12 which sheds vortices in response to fluid flow across the vibrating assembly and a generator 14 which generates electrical power in response to vibration of the vibrating assembly, wherein the vortex shedding device sheds the vortices at a frequency that can be adjusted for particular working conditions by selecting the require vane 16 size or changing the stiffness of the element 14a (Re. Column 3, lines 55-68 and column 4, lines 1-9), the elastic support 18. However, Kolm et al. do not disclose the vortex shedding device shedding the vortices at a frequency that is substantially equal to the resonant frequency of the vibrating assembly.

Allen discloses in Abstract the device shedding the vortices at a frequency that is substantially equal to the resonant frequency of the vibrating assembly, for the purpose of maximum energy transfer from the fluid stream to the vibrating assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the vibrating assembly as taught by Kolm et al. and to provide the vortex shedding device shedding the vortices at a frequency that is substantially equal to the resonant frequency of the vibrating assembly as taught by Allen for the purpose of maximum energy transfer from the fluid stream to the vibrating assembly.

Re claim 4 and 10, Kolm discloses the generator with electromagnetically active material (piezoelectric material).

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5. Claims 7, 9, 11, 19, 20-33, 37-50, 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (US 20060064972) as applied to claim above and further in view of Tubel et al. (US 5,839,508).

Allen discloses the vibrating assembly (including a linear generator 64) essentially as claimed. However, Allen does not disclose the generator including at least one magnet displaced relative to a coil in response to vibration of the vibrating assembly.

Tubel et al. disclose in Figure 7A the generator including at least one magnet 100 displaced relative to a coil 112 in response to vibration of the vibrating assembly 102, for the purpose of generating electric power for use in a wellbore or well.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the vibrating assembly as taught by Allen and to provide the generator including at least one magnet displaced relative to a coil in response to vibration of the vibrating assembly as taught by Tubel et al. for the purpose of generating electric power for use in a wellbore or well.

Re claim 20, the combined assembly discloses the claimed invention except for the generator including at least two of the magnets and at least two of the coils, at least one of the magnets and at least one of the coils being positioned on each of opposite lateral sides of the arm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the generator with at least two of the magnets and at least two of the coils on opposite lateral sides of the arm for the purpose of increasing the generator power output, since it has been held that mere

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duplication of the essential working parts of a device involves only routine skill in the art.

*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

***Allowable Subject Matter***

6. The indicated allowability of claims 1, 2, 4-6, 10 and 15-18 is withdrawn in view of the newly discovered reference(s) to Allen (US 2006/0065972). Rejections based on the newly cited reference(s) follow.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

***Prior Art***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (571) 272-2037. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Waks  
Primary Examiner  
Art Unit 2834

8/18/06